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Figure 14
As Amended

ALTERNATIVE 2
Route 123 - Route 193 CIA Entrance

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Figure 15
As Amended

ALTERNATIVE 4
Route 123 Route 193 CIA Entrance

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Environmental Assessment
Central Intelligence Agency - Off-Site Road Improvements
Route 123 - Fairfax County

I. Description of the Proposed Project

The proposed project is located in the upper north eastern portion of Fairfax County. This Environmental Assessment which has been prepared by the Virginia Department of Highways and Transportation for the Central Intelligence Agency has evaluated two potential roadway improvements at the Route 123 entrance at the C.I.A. The two candidate alternatives are labeled Alternative 2 and Alternative 4 and are described as follows:

Alternative 2 is an at-grade solution wherein traffic flows would be controlled by interconnected signalization and intersection channelization.

In Alternative 2, the eastbound lanes of Route 123 would be relocated northerly adjacent to existing westbound Route 123. Route 193 will be realigned to intersect with Route 123 opposite Potomac School Road. (Two lanes in each direction will be provided on Route 123 in accordance with the Traffic Management System agreement between V.D.H.&T and the C.I.A. (see attachment I-1. A variable width median will be provided to separate the east and west bound lanes of Route 123. The present median width would be retained at each end of the project. A third westbound lane, which is provided along Route 123 through the intersection with the C.I.A. entrance, would drop as a free flow right turn lane to Route 193.

Dual turning lanes are provided for left turns into and right turns out of the C.I.A. entrance. The entrance would be widened to a four- lane divided cross section. A single turn lane is provided for left turns out of the C.I.A. Dual left turn lanes are needed for the Route 193 turn onto eastbound Route 123. The left turn lane for turns into the FHWA/C.I.A. (Turkey Run Farm) access road would be retained. This access roadway would widen at the intersection of Route 193 to provide two outbound lanes-an exclusive lane for both left and right turning movements. Traffic signals would be installed at

Route 123/C.I.A. entrance and at the intersection of Route 193/Potomac School Road and Route 123. (See attached map labeled Alternative 2.)

Alternative 4 is a grade-separation alignment. This alternative relocates the eastbound and westbound lanes of Route 123 to the north, adjacent to the westbound lanes. (Route 123 would have two lanes in each direction in accordance with the Traffic Management System agreement between V.D.H.&T. and the C.I.A.). At-grade left turns into and out of the C.I.A. are eliminated and replaced with ramps that overpass Route 123 in the vicinity of the existing C.I.A. entrance. The grade at Route 123 opposite the C.I.A. entrance will be lower than at present. The movement from Route 193 to Route 123 eastbound is accommodated with a ramp overpassing Route 123 that generally follows the alignment of the existing Route 123 eastbound lanes. The outbound C.I.A. ramp merges with Route 193 eastbound and with the relocated Route 123 eastbound lanes just west of Merchant Lane. An auxiliary lane is indicated along Route 123 westbound to serve as an acceleration/deceleration, free flow right turn lane at and beyond the C.I.A. entrance. This third lane would end as a right turn lane to Route 193. A connecting roadway is provided between Route 193 and Route 123 opposite Potomac School Road, which would have low traffic volumes and (would probably not warrant a traffic signal at Route 123 under current criteria).

The ramps into and out of the C.I.A. entrance from Route 123 would be lengthened significantly to provide the grade-separation. The alignment of Route 123 and outbound right turn ramp will require utilization of part of the Scattergood-Thorne Property.

A ramp from eastbound Route 123 to eastbound Route 193 would be located east of Potomac School Road and utilized by traffic on eastbound Route 123 destined for Merchant Lane. This would avoid weaving across the eastbound Route 193 traffic merging with Route 123 west of Merchant Lane. (See attached map labeled Alternative 4.)

The C.I.A. has entered into an agreement with VDH&T to implement Traffic Management Strategies whereby the existing arrival and departure peak hourly rates at Routes I23, I93, and George Washington Parkway will not exceed existing rates. This TMS is applicable to both alternatives. In lieu of constructing a third lane initially in each direction on Route I23, the C.I.A. and VDH&T will monitor the arrival and departure rates quarterly at these entrances. In the event the C.I.A. fails to operate within the agreed upon peak hour arrival and departure rates for two consecutive quarters, the C.I.A. will provide VDH&T funding not to exceed \$500,000 to implement such additional road improvements as may be mutually agreed to, but in no event less than six through lanes on Route I23 from the vicinity of Potomac School Road to the vicinity of Merchants Lane. Refer to Attachment I at the end of this document.

Zoning in the project area is residential, public, and governmental.

II. Need for the Project

The proposed expansion of the C.I.A. headquarters will result in an increase in the number of persons entering and leaving the site during the morning and evening periods. A study analyzed what this increase would mean in terms of vehicular traffic loads at each of the major C.I.A. access points under a range of assumed conditions. Traffic impacts were examined for the year 1986 as well as for the year 2005 (the 20-year design for which long range highway plans are prepared). The analyses indicated that travel in the year 2005 would be heavier than in 1986 due to the expected continued increase in non C.I.A. "background traffic".

III. Alternatives Considered

Based on the findings of the traffic impact analyses a number of alternatives were developed. The objective was to provide a range of road improvements capable of providing acceptable traffic service under future conditions. They varied from very modest operational improvements to more extensive reconstruction of specific intersections⁽¹⁾.

Technical Memorandum No. 2 presented a description of the alternatives which were technically feasible, defined the engineering, economic and social characteristics of each and indicated the manner in which each had the potential for satisfying the forecast traffic loads.

After the publication and distribution of each of the two Technical Memoranda described above, meetings were held with the C.I.A. Traffic Advisory Committee to obtain their views on the study findings. The objective was to identify those alternatives which were viable candidates for implementation.

Findings and conclusions of the previous study steps include:

- o There is no practical way to improve the Capital Beltway Interchange with George Washington Memorial Parkway to accommodate forecast P.M. peak hour levels of traffic. Service levels at that location will continue to deteriorate for traffic destined from westbound on the Parkway to southbound on the Beltway (Outer Loop). Significantly, about one-fourth of the P.M. peak period trips exiting the C.I.A. Headquarters currently use this route. As traffic volumes increase and service levels deteriorate these trips will seek alternate routes. Long term solutions to this problem must be dealt with in the regional planning process and therefore are beyond the scope of this study.

(1) C.I.A. Expansion Study Preliminary Design Report-Draft, page 4.

- o Widening at the Cabin John Bridge by the Maryland State Highway Administration (MSHA) and improvements by VHD&T on the Virginia approach to the bridge will facilitate the flow of traffic from westbound on the Parkway to northbound on the Beltway (Inner Loop). However, only a small percentage of C.I.A. traffic uses this route.
- o Minor improvements are suggested for the C.I.A. entrance road interchange on the GWM Parkway. These will improve safety and operations but will not increase capacity significantly.
- o Seven roadway improvement concepts for the Route 123/Route 193/C.I.A. entrance area were examined. From this group, Alternatives 2 and 4 were selected for Preliminary Engineering Evaluation.

The McLean Citizen's Association and the Ad Hoc Committee each developed lists of objectives for the off-site road improvements under study against which the alternatives would be compared. A synthesis of these citizens' views is enumerated below (2).

- I. At the interchange of the George Washington Memorial Parkway and the Beltway, VDH&T improvements should coincide with Maryland's widening of the Cabin John Bridge and should provide an exclusive lane for traffic entering the Beltway from the Parkway in both directions.
2. The Parkway should be improved to accommodate traffic increases for the C.I.A. expansion.

(2) Ibid, page 5.

3. Turkey Run Farm Park Road should be enhanced to serve as expanded secondary access to the C.I.A. Landscaping should be extensive to maintain its suitability as an access road to Turkey Run Farm Park.
4. Route I23 should remain a four-lane highway and Route I93 a two-lane highway.
5. Eastbound Route I23 should be shifted to the north adjacent to existing westbound Route I23 to improve the sight distance at Merchant Lane/Savile Lane and to provide greater distance between the roadway and the adjacent homes.
6. Traffic lights should be provided at the Potomac School Road/Route I23 and the Route I23/Merchant Lane/Savile Lane intersections.
7. Langley Fork should be regraded to provide sight distance. Route I93 from the Beltway to Route I23 should have extensive safety improvements.
8. All intersections should be at-grade. If a grade-separation is essential, ramps should be no higher than the existing grade of the eastbound lanes of Route I23.
9. The Ad Hoc Committee preferred that the current one-way link between Route I93 and Potomac School Road be eliminated. However, if this is not possible it should remain a one-lane, one-way link.
10. There should be acceleration and deceleration lanes along Route I23 at the intersections of Potomac School Road and Merchant Lane-Savile Lane.
- II. There should be no overhead signs.
12. There should be no overhead lighting on ramps.
13. Maximum use should be made of berms and landscaping to buffer residential areas from visual or noise impacts of grade-separations and lane shifts.

14. Alternatives which require additional rights of way should be structured to utilize government lands.
15. If on-site parking becomes a problem for C.I.A. employees, the C.I.A. should discourage its employees from parking off-site, support such local or state legislation and/or ordinances which may be needed to require permit parking in nearby communities, and attempt to obtain authority and funding necessary to expand on-site parking capacity⁽³⁾.

The No-Build option has been evaluated as an alternative for this study, but due to the proposed C.I.A. expansion and increased traffic volumes, this option will not meet the needs of this project as discussed in Technical Memorandum #1.

IV. Impacts and Coordination

Based on the procedures for processing highway projects, this Environmental Assessment is being made available to the public.

Social - At the time of the preparation of this document, the concerns of the adjacent communities have had a significant influence in the Decision Making Process.

Through on-site inspections and contacts with various state and local agencies it has been determined that this highway project is not likely to adversely affect the quality of the human environment. Comments received from Fairfax County, Office of the County Administrator state, "please be advised that we have no comments relative to the potential environmental affects for the proposed C.I.A. road improvements at Route 123 C.I.A. entrance". Input obtained from the Northern Virginia Planning District

(3) Ibid, page 6.

Commission indicated: "The Northern Virginia Planning District Commission (NVPDC) has reviewed the Central Intelligence Agency (C.I.A.) Off-Site Road Improvements and is not aware of any opposition to the project as proposed. It is not inconsistent with regional plans".

Fairfax County Public School Officials stated that, "After a review by our Transportation Services staff, it has been determined that Alternative 4 would be most beneficial to all concerned".

As stated previously this Environmental Assessment has been prepared for the C.I.A. to be used by them for the purpose of conducting their own public involvement process as well as comparing the environmental impacts associated with Alternatives 2 and 4. The following input was received from the Potomac School:

"Given that State Route 123 is a major regional highway serving long-distance trips as well as a local roadway serving various communities, Alternative 2 appears to create the best balance of all functional requirements. Alternative 4, on the other hand, appears to create a high-type urban interchange with little consideration of the needs of the local neighborhoods".

In our opinion, a traffic signal should be installed at Potomac School Road simply to provide for safe ingress and egress of buses and other vehicles traveling to and from Potomac School. The State should perform a detailed warrant analysis--certainly one of the ten warrants can be met. This analysis should consider the traffic that will "drift" from Merchant Lane to Potomac School Road in order to gain safe access to Routes 123 and 193. A traffic signal at Potomac School Road is needed under either Alternatives 2 or 4 in order to provide safe ingress and egress to the neighborhoods south of the regional highway system. If the State is not willing to have a traffic signal operate at this intersection during all hours of a day, they should consider an operating traffic signal during all hours school buses arrive and depart the School--and place it in a "flash mode" during other hours. It appears however, that the best

condition would be to have the traffic signal in operation at all times given the projected high volumes of traffic on Route 123. A continuous flow of traffic on this roadway at a relatively high speed will make it very difficult for drivers to safely cross or access Routes 123 and 193 at Potomac School Road. A traffic signal at Potomac School Road will also assist in providing safer conditions at Merchant Lane.

Historic and Archaeology - The Virginia Historic Landmarks Division indicated there are no standing structures of historic and architectural interest within the proposed project limits.

A Phase I Survey was conducted by the Department's Archaeological Staff. Much of the terrain associated with the proposed alignments has been previously disturbed, therefore, no artifacts were recovered. No potential sites eligible for inclusion to the National Register were identified, therefore, no additional archaeological investigations are warranted.

Ecological and Cultural - No significant adverse impacts are anticipated on natural, ecological, cultural or scenic resources of national, state or local significance. This project will not require the acquisition of any Title 49 U.S.C. Section 303(c) lands, prime agricultural areas, or unique farmlands. The Department of Conservation and Economic Development offered the following comments: "It is recommended that careful site planning be initiated to ensure that the surrounding areas are not disrupted anymore than is necessary. Once the construction is completed an extensive landscaping of the disturbed areas should be undertaken, in the restoration of the site. Of the two alternatives shown, we would prefer to see No. 2 constructed as it would appear to be less disruptive to the project area".

The Fairfax County Park Authority operates a 52.8 acre parcel being used for active recreation through agreement with the National Park Service, located just northwest and adjacent to the intersection of Route 193 and Turkey Run Farm Road. Langley Fork Park is currently under construction with improvements to existing facilities and creation of totally new facilities. The only improvement that will impact on the Turkey Run Farm Road proposal is the realignment of the park entrance road. The centerline of the subject road will intersect with Turkey Run Farm Road 45 feet southwest of the current existing gravel entrance road. As I stated previously, the new entrance road is under construction.

With this preference in mind, we have reviewed Alternative 2 and 4 and offer the following comments:

Alternative 2 - "Your proposed improvements to the intersection of Route 193 and Turkey Run Farm Road should include provisions for the realigned Langley Fork Park entrance currently under construction. This alternative will not adversely impact the park but will improve ingress/egress circulation.

Alternative 4 - In this solution our realigned entrance road would penetrate the proposed (realigned) Turkey Run Farm Road at a radius and that may not be desirable. Our entrance road would also have to be extended to meet the new Turkey Run Farm Road. We would request that any expense of extending or realigning our entrance road be borne by the sponsor of these improvements".

The Northern Virginia Soil and Water Conservation District submitted the following comments: "Critical areas exist on steep slopes and in drainageways. Rigorous application of erosion and sediment control practices can alleviate these problems".

Comments received from the Virginia Division of Forestry reveal that Alternative 2 embraces areas of small size trees of no commercial value. Alternative 4 would cut through two groves of larger size hardwoods and pine. There is a very large black maple tree that would be affected with Alternative 4. There are no plants on either the state or federal endangered and threatened species list nor any historic trees listed on the National or Virginia Social Register of Big Trees. The proposed project will increase fire protection due to an improvement in traffic flow and movement of fire apparatus.

The Department's Wildlife Biologist conducted an on-site reconnaissance survey and contributed the following data to this study. "Construction will not impact local wildlife species at the Route 123 C.I.A. entrance. Both alternatives are in residential areas with disturbed wooded areas that do not support good wildlife populations. Hunting is not allowed in the vicinity. There will be no effect on state scenic rivers or existing national wild and scenic rivers by the proposed project. There are no known unique breeding or nesting grounds nor are there any rare or endangered mammal or bird species within the project limits. There are no endangered plants in the area nor any endangered terrestrial species within the project area".

Relocation - Neither Alternative 2 or 4 will displace any families, businesses, farms or non-profit organizations.

Air - As a result of the 1977 Clean Air Act amendments, the State Air Pollution Control Board (SAPCB) developed the current 1979 SIP for Virginia. In light of air monitoring data, the area was classified by the SAPCB as nonattainment for CO (except in Loudoun and Prince William Counties), and ozone. The region is also on Air Quality Maintenance Area and a Volatile Organic Compound Emissions Control Area. The study area is in the National Capitol Interstate Air Quality Control Region.

Generally, the CO concentrations which occur at any one site are affected by several different emissions sources. Ambient CO concentrations consist of the components of any local source contributions and background. Background CO concentrations are attributable to CO emissions in the general community and CO transported into the community. In any one area, ambient CO levels may vary due to specific localized sources, whereas background CO does not. Background CO can be considered to be a function of land use, land use density, and transportation related activity.

Background CO data obtained from the closest SAPCB monitoring station, located on Lewinsville Road, approximately 3 miles SW of the CIA Entrance Road, was used to represent background levels for the study area. Data obtained from "Ambient Air Quality Data Annual Report 1983" published by SAPCB, shows 8.9 and 5.6 parts per million for the one and eight hour second highest concentrations, respectively. All standards other than annual standards, are specified as not to be exceeded more than once per year. Therefore, the second highest CO concentrations were used in this analysis to be consistent with the terminology of NAAQS.

The projection of CO background concentrations is based on vehicular CO emissions and the growth on non-vehicular sources of CO emissions. In the former, vehicular CO emission reductions for the project area are calculated in a mesoscale analysis. In the latter, non-vehicular emissions are based on population growth estimates for Fairfax County. The population growth estimates are based on data obtained from the Tayloe Murphy Institutes's, "Estimates of the Population of Virginia Counties and Cities, May, 1979".

CO Concentrations due to highway vehicles were calculated by using AIRPOL-4A, a Gaussian dispersion model developed by the Virginia Highway and Transportation Research Council. The mathematics of the model is beyond the scope of this document. Technical information on the model is available in a series of manuals by request to the Environmental Quality Division, Virginia Department of Highways and Transportation, Richmond, Virginia.

A "worst case" approach (6 lanes) was taken in the study. Conditions must be consistent with the requirement that the NAAQS are not to be exceeded more than once a year. Meteorological conditions assumed an average temperature for the coldest month of the year, stable atmospheric conditions of stability E in the peak hour, and D and E in the peak eight hour, a wind speed of one meter per-second and wind directions which result in the highest concentrations. Peak one and eight hour period traffic volumes were used. Road configuration was modeled at-grade to provide conservative estimates. The study sites were selected at locations where the highest concentrations can be expected and the general public has access during the analysis periods.

Air quality Site 1 is an open area located on the right of way line near the northwest corner of Route 123 and the southbound spur of Route 193 (See Figure I Labeled Air and Noise Sites). This site is 40 feet from Route 123 and 30 feet from the southbound spur of Route 193. With either Alternative 2 or Alternative 4, this site will be 28 feet from Route 123 and 30 feet from the southbound spur of Route 193.

Air quality Site 2 is located on the right of way line in back of a residence on Ramshorn Drive and is 35 feet from existing eastbound Route 123 (See Figure I). With Alternative 2, this site will be 105 feet from eastbound Route 123. With Alternative 4, this site will be 35 feet from the Route 123 ramp B and 105 feet from eastbound Route 123.

Air quality Site 3 is located on the right of way line near Immanuel Presbyterian Church and is 40 feet from Route 123 (See Figure I). With either Alternative 2 or Alternative 4, the air quality site will be 30 feet from Route 123.

Table I shows the peak one and eight hour CO concentrations under "worst case" conditions. The levels shown as "Not Including Background" are the results of the Airpol 4-A model and represent those levels due to vehicle emissions on adjacent highways. The "Including Background" levels represent ambient concentrations which can be compared against the NAAQS of 35 ppm for one hour and 9 ppm for eight hours.

Conclusions - The analysis shows that the maximum expected average one and eight hour CO concentrations did not exceed the NAAQS of 35 ppm and 9 ppm, respectively, in any build or no build case.

This project is in an area which has been designated as nonattainment for ozone and carbon monoxide. This area's State Implementation Plan (SIP) which includes Transportation Control Measures (TCMs), demonstrates attainment of the CO and ozone standards by 1987. This project, which is exempt from conformity with the SIP because it is a safety realignment project, will not adversely affect the TCMs of this SIP.

Construction activities are to be performed in accordance with Department Road and Bridge Specifications. The Specifications are approved as conforming with the SIP and require compliance with all local, state, and federal regulations.

In conclusion, the Virginia Department of Highways and Transportation feels the project enhances the overall air quality in the study area. The project will not adversely affect the current State Implementation Plan and is not expected to interfere with the attainment or maintenance of the NAAQS.

Noise The noise impacts of this project were assessed in accordance with guidelines published in Volume 7, Chapter 7, Section 3 of the Federal-aid Highway Program Manual (FHPM 7-7-3). This noise study evaluates the noise impacts of the proposed project and considers possible abatement measures, in accordance with these guidelines.

FHPM 7-7-3 specifies that sound levels shall be given in decibels (dB), a logarithmic scale for measuring sound pressure levels. One decibel represents roughly the smallest change in loudness that can be perceived by the human ear. Also, an increase of 10 dB(A) corresponds to a doubling of loudness.

TABLE I
PEAK CARBON MONOXIDE CONCENTRATION (ppm) UNDER WORST, METEOROLOGICAL CONDITION

Site No.	Year	Case	Not Including Background		Including Background	
			One Hour	Eight Hour	One Hour	Eight Hour
1	1983	Base	3.2	1.9	12.1	7.5
	1986	No-Build	3.1	1.7	9.4	5.7
	1986	Build Alt. 2	3.3	2.5	9.0	6.1
	1986	Build Alt. 4	2.1	1.3	7.3	4.5
	2005	No-Build	1.8	1.2	5.8	3.8
	2005	Build Alt. 2	1.9	1.0	5.3	3.2
	2005	Build Alt. 4	1.2	0.7	4.4	2.7
2	1983	Base	3.8	2.4	12.7	8.0
	1986	No-Build	3.6	2.3	9.9	6.3
	1986	Build Alt. 2	1.6	1.1	7.3	4.7
	1986	Build Alt. 4	1.6	1.1	6.8	4.3
	2005	No-Build	2.2	1.4	6.2	4.0
	2005	Build Alt. 2	1.0	0.6	4.4	2.8
	2005	Build Alt. 4	0.9	0.7	4.1	2.7
3	1983	Base	2.8	1.8	11.7	7.4
	1986	No-Build	2.6	1.7	8.9	5.7
	1986	Build Alt. 2	2.6	1.3	8.3	4.9
	1986	Build Alt. 4	1.9	1.2	7.1	4.4
	2005	No-Build	1.6	1.1	5.6	3.7
	2005	Build Alt. 2	1.6	0.8	5.0	3.0
	2005	Build Alt. 4	1.2	0.8	4.4	2.8

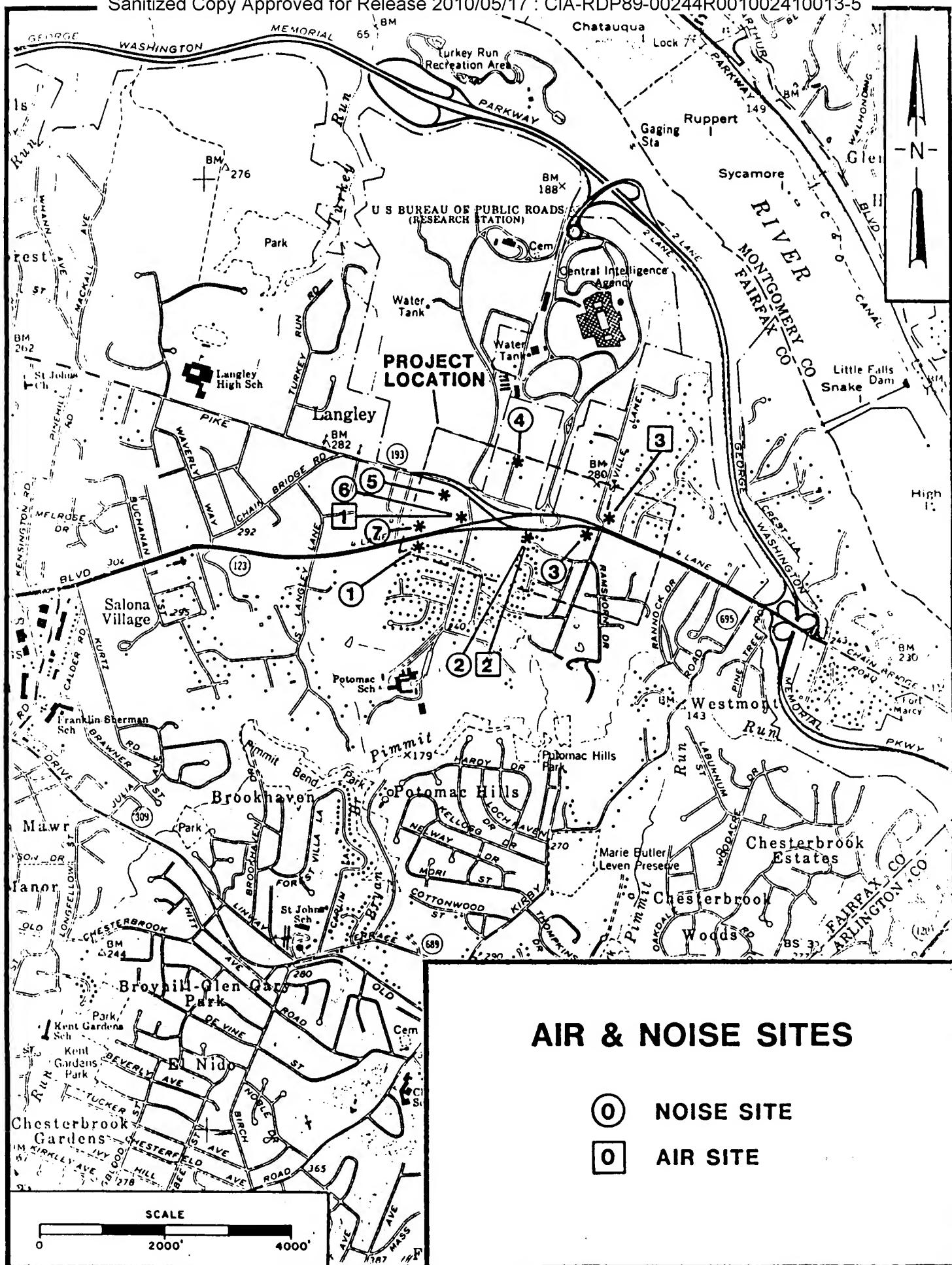


FIGURE 1

TABLE I
NOISE ABATEMENT CRITERIA
Hourly A-Weighted Sound Level - Decibels dB(A)

<u>Activity Category</u>	<u>Leq(h)</u>	<u>Description of Activity Category</u>
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Seven test sites reflecting the worst noise conditions along the proposed project were selected for this study (Locations are found in Figure I). The test sites and areas along the proposed project that each represents are listed in Table II and Figure I.

TABLE II
SITE AND STUDY AREA LOCATIONS

<u>Site No.</u>	<u>Location</u>	<u>Areas Represented</u>
1	South of Rt. 123 (Sta. 601+50)	Residential receptors on the south side of Rt. 123 from Dunaway Dr. to Potomac School Road. (Sta. 601+00 to Sta. 611+50)
2	South of Rt. 123 (Sta. 620+00)	Residential receptors on the south of of Rt. 123 from Potomac School Road to the Main C.I.A. Entrance. (Sta. 611+50 to Sta. 623+00)
3	South of Rt. 123 (Sta. 631+00)	Residential receptors on both sides of Rt. 123 from the Main C.I.A. Entrance to Basil Road. (Sta. 623+00 to Sta. 638+00)
4	North of Rt. 123 (Sta. 620+00)	Residential receptors on the north side of Rt. 123 from the Main C.I.A. Entrance to Potomac School Road. (Sta. 623+00 to Sta. 611+50)
5	South of Rt. 193 (Rt. 193 Sta. 10+00)	Residential receptors on the south side and a recreation area on the north side of Route 193 from the beginning of construction along Route 193 to Route 123. (Route 193 Sta. 10+00 to Route 193 Sta. 19+93)
6	North of Rt. 123 (Sta. 610+00)	Residential receptors at the intersection of Route 123 and Route 193.
7	North of Rt. 123 (Sta. 606+00)	Residential receptors on the north side of Route 123 from Dunaway Dr. to Potomac School Road. (Sta. 601+00 to Sta. 611+50)

Noise levels in the project area were determined for the existing conditions, the design year no-build conditions and the design year build conditions. The design year is a future year, 2005, chosen for comparison with the present time. The design year no-build noise levels are the noise levels occurring in the design year if the proposed project is not constructed. Noise levels which will occur in the design year, if the proposed project is constructed, are design year build noise levels.

In order to determine the degree of impact of traffic noise on human activity, the design noise levels (NAC) established by FHPM 7-7-3 are used. These criteria represent the upper limit of acceptable traffic noise levels conditions and also represent a balancing of that which may be desirable and that which may be achievable. (See Table I)

When the predicted design year build noise levels in the project area exceed the NAC or are substantially higher than existing levels, the Department must consider implementation of measures to reduce the traffic noise. If it is found that such mitigation measures will cause adverse social, economic or environmental effects which outweigh the benefits received, the highway agency may dismiss them from consideration.

TABLE I
NOISE ABATEMENT CRITERIA
Hourly A-Weighted Sound Level - Decibels dB(A)

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A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Seven test sites reflecting the worst noise conditions along the proposed project were selected for this study (Locations are found in Figure I). The test sites and areas along the proposed project that each represents are listed in Table II and Figure I.

TABLE II
SITE AND STUDY AREA LOCATIONS

<u>Site No.</u>	<u>Location</u>	<u>Areas Represented</u>
1	South of Rt. 123 (Sta. 601+50)	Residential receptors on the south side of Rt. 123 from Dunaway Dr. to Potomac School Road. (Sta. 601+00 to Sta. 611+50)
2	South of Rt. 123 (Sta. 620+00)	Residential receptors on the south of of Rt. 123 from Potomac School Road to the Main C.I.A. Entrance. (Sta. 611+50 to Sta. 623+00)
3	South of Rt. 123 (Sta. 631+00)	Residential receptors on both sides of Rt. 123 from the Main C.I.A. Entrance to Basil Road. (Sta. 623+00 to Sta. 638+00)
4	North of Rt. 123 (Sta. 620+00)	Residential receptors on the north side of Rt. 123 from the Main C.I.A. Entrance to Potomac School Road. (Sta. 623+00 to Sta. 611+50)
5	South of Rt. 193 (Rt. 193 Sta. 10+00)	Residential receptors on the south side and a recreation area on the north side of Route 193 from the beginning of construction along Route 193 to Route 123. (Route 193 Sta. 10+00 to Route 193 Sta. 19+93)
6	North of Rt. 123 (Sta. 610+00)	Residential receptors at the intersection of Route 123 and Route 193.
7	North of Rt. 123 (Sta. 606+00)	Residential receptors on the north side of Route 123 from Dunaway Dr. to Potornac School Road. (Sta. 601+00 to Sta. 611+50)

In Table III, the design year build levels for both alternatives, as well as the existing and no-build levels, are listed for each site. Under Alternative 2, the design year build levels will be 1-2 dB(A) higher than existing and no-build levels at Sites 1, 3, 4, 6 and 7, and 2-6 dB(A) lower than existing and no-build levels at Sites 2 and 5. Under Alternative 4, the design year build levels will be 2-4 dB(A) higher than existing and no-build levels at Sites 1 and 3-7, and 7 dB(A) lower than existing and no-build levels at Site 2.

Build noise levels under both alternatives are lower than existing noise levels at Site 2 because the proposed roadway is being shifted away from the site. At Site 5, the build noise level is lower than the existing noise level under Alternative 2 due to a proposed signalized intersection with Route 123 creating an interrupted flow condition and consequently lower speeds.

Since all sites represent residential properties and a recreation area, the applicable NAC is 67 dB(A), as listed in Table I. The results of the analysis indicated that Sites 1-7 will neither exceed the NAC nor will they experience a substantial increase in noise levels by the design year.

The Department bases build noise levels on off-peak traffic volumes when the noise sensitive activity under consideration occurs during the off-peak period. Church activities generally occur at times other than peak traffic hours. Therefore, the build noise levels were determined for off-peak periods at Immanuel Presbyterian Church, which is located along this project. As shown in Table IV, neither the exterior nor interior noise levels will exceed the applicable NACs, nor will design year build levels be substantially higher than existing levels at this Church.

Regardless of which alternative is selected, no noise sensitive receptors along the proposed project will violate noise impact criteria. Therefore, traffic noise mitigation is not warranted and the only noise abatement feature implemented with this project will be a limit on construction noise.

Water - The proposed alternatives do not cross any streams but may affect a wet weather tributary to Pimmet Run which lies adjacent to the proposed alternatives.

The project is located with the Piedmont Physiographic Province. The topography of the area consists of a plateau upon which the project and existing developments are constructed surrounded by gently rolling hills and steep bluffs.

Soils within the project area are primarily of the Fairfax-Beltsville-Glenelg Association of the Piedmont Upland. Elevations in the area are generally 450 feet. The Fairfax and Beltsville soils comprise 80 percent of the total.

The proposed project is within the Potomac River watershed of the Potomac River drainage basins. The project runs adjacent to a wet weather tributary of Pimmet Run and has a drainage area of less than one square mile.

There are no wetlands as defined by executive order 11990 associated with the project.

There are no known listed threatened or endangered aquatic species, nor critical habitat for such species, present in the project streams.

There are no public water supplies affected by the project and no floodplain impacts are anticipated.

Comments

From the beginning of this study to the present time, there have been seven meetings of the C.I.A. Traffic Advisory Committee to determine an improvement at the C.I.A. that would be agreeable to the various citizen groups, the C.I.A. and the Department. This Environmental Assessment has evaluated candidate Alternatives 2 and 4 and (neither) alternative will result in significant environmental impacts. Therefore based on citizen input and various agency feedback, Alternative 2 will meet the needs of the C.I.A. and the community at this time. (Improvements to other roadways in the area will be needed in the future to accommodate background traffic growth.)

TABLE III

EXISTING AND DESIGN YEAR NOISE LEVELS

<u>Site No.</u>	<u>Condition</u>	<u>Source-Receptor Noise Source</u>	<u>Distance (feet)</u>	<u>Noise Level dB(A)</u>
1	Existing	Route 123	100'	64
	No-Build	Route 124	100'	64
	Build	Route 123 (Alt 2)	85'	65
		Route 123 (Alt 4)	85'	66
2	Existing	Route 123	85'	65
	No-Build	Route 123	85'	65
	Build	Route 123 (Alt 2)	275'	59
		Route 123 (Alt 4)	390'	58
3	Existing	Route 123	165'	61
	No-Build	Route 123	165'	61
	Build	Route 123 (Alt 2)	155'	62
		Route 123 (Alt 4)	155'	63
4	Existing	Route 123	545'	54
		CIA Entrance	490'	45
				Total 55
	No-Build	Route 123	545'	54
		CIA Entrance	490'	45
				Total 55
	Build	Route 123 (Alt 2)	530'	57
		CIA Entrance	445	47
				Total 57
		Route 123 (Alt 4)	435'	58
		CIA Entrance	445'	47
				Total 59
5	Existing	Route 193	95'	59
	No-Build	Route 193	95'	59
	Build	Route 193 (Alt 2)	95'	57
		Route 193 (Alt 4)	95'	61

6	Existing	Route 123	155'	62
		Route 193 Ramp	155'	
		Route 193 (Nr/Ln)	305'	
		Route 193 (Far/Ln)	385'	
		Total	62	
7	No-Build	Route 123	155'	62
		Route 193 Ramp	155'	
		Route 193 (Nr/Ln)	305'	
		Route 193 (Far Ln)	385'	
		Total	62	
8	Build	Route 123 (Alt 2)	143'	64
		Route 193 (Alt 2)	155'	
		Total	64	
	Build	Route 123 (Alt 4)	143'	65
		Route 193 (Ramp H)	155'	
		Route 193 (Ramp G)	185'	
		Route 193 (Ramp B)	330'	
		Route 193 (Ramp A)	370'	
		Total	65	
9	Existing	Route 123	80'	64
	No-Build	Route 123	80'	
	Build	Route 123 (Alt 2)	68'	
10		Route 123(Alt4)	68'	66

TABLE I
DESIGN YEAR BUILD NOISE LEVELS* FOR OFF-PEAK PERIODS

*These noise levels are based on the highest off-peak hour traffic volumes that correspond to time periods when noise sensitive activities generally take place

Land Use and Building Description	Design Year Exterior L _{eq}	Design Year Interior L _{eq} With Open Windows	Design Year Interior L _{eq} With Closed Windows
Immanuel Pres. (Alt 2)	54	44	34**
Immanuel Pres. (Alt 4)	53	43	33**

**Denotes air-conditioned building

The McLean Citizens Association, and the AD-HOC Committee representing the Clearview Manor Citizens Association, the County Day School, the Downcrest Citizens Association, the Evermay Community Association, the Langley Oaks Homeowners Association and the Lynwood Citizens Association offered the following comments regarding Alternatives 2 and 4.

MCA COMMENTS

On motion of the MCA Transportation Committee, the McLean Citizens Association Board of Directors at its November meeting approved the following resolutions:

A. Support of Alternative 2, the at-grade solution at the Dolley Madison entrance, rather than Alternative 4, the grade-separated solution, with certain conditions:

1. That the CIA build a short asphalt trail which would provide a connection between the sidewalk on the south side of Route 123 and the trail which is to be built on the north side of Route 193.
2. That the two-way section of Potomac School Road-extended be moved slightly to the east to allow space for an earth berm and landscaping between it and Evermay Section 7.
3. That the existing grade between the eastbound and westbound lanes of Route 123 at Potomac School Road be equalized, to eliminate the slope of Route 123 at Potomac School Road which in bad weather is hazardous to school buses and others.
4. That a signal, synchronized with the signal at the main exit from CIA, be provided at the double right turn to Route 123.
5. That the old eastbound pavement bordering Evermay and Clearview Manor be removed and replaced with landscaping for noise control, except for a four-foot wide strip of pavement paralleling the new eastbound lanes which would function as a trail.

B. Support of such amendments to the Fairfax Comprehensive Plan as may be necessary to make it clear that Route 123 is to remain at four lanes plus turning lanes east of Old Dominion Drive. (Note: The Plan presently shows the possible addition of one lane in each direction for use by buses between the intersection of Routes 193 and 123 and the bridge of Route 123 over the George Washington Parkway.)

AD-HOC COMMENTS

It is the clear consensus of the surrounding communities that alternative #2 which provides for an at-grade solution is preferable to alternative #4. We, therefore, support alternative #2 with the following changes:

- a. Route 123 be graded and paved as a four lane road only.
- b. (A berm be erected on the east end of Evernay Section 7 such that the Route 193 spur is realigned approximately 60-80 feet east of its present location to facilitate traffic proceeding from Potomac School Road to Route 193 northbound.)
- c. The number of lanes on Route 193 at the intersection of Route 193 and Potomac School Road be limited to three - one northbound and two southbound.
- d. (A "trip" (or appropriate other) signal be installed at the intersection of Saville Lane and Route 123.)
- e. More definitive descriptions of signing and landscaping be provided prior to the conduct of a public informational meeting.

The following responses have been received from other agencies on the study committee.

- o The C.I.A. supports Alternative 2.

- o The United States Park Service has no control over Route 123 and either alternative is satisfactory with them.

"NCPC looks to CIA to determine which of the two alternatives bests serves the agency and its employees. However, the Commission will be glad to hear that the Committee is reaching a consensus of opinion on one alternative."

ATTACHMENT 1

Memorandum of Agreement
Between
The Central Intelligence Agency
and
The Virginia Department of Highways and Transportation

THIS AGREEMENT, Made this 5th day of Sept., 1984, by and between the United States of America, acting by and through the Central Intelligence Agency, and the Commonwealth of Virginia, acting by and through the State Highway and Transportation Commissioner;

WITNESSETH: THAT WHEREAS, the United States Government is the owner of land located in Fairfax County, Virginia, adjacent to State Route 123 on which it proposes to construct certain new and additional facilities which will modify existing traffic volume and distribution and;

WHEREAS, it is mutually desirable between the parties hereto that improvements be constructed so as to enhance an orderly and safe flow of traffic for the users of State Route 123 and;

WHEREAS, it is mutually desirable that the Central Intelligence Agency implement traffic management strategies that limit the number of lanes on Route 123 required to be constructed to four through lanes and;

WHEREAS, the Commonwealth of Virginia desires recourse in the event the Central Intelligence Agency fails to properly implement and maintain sufficient traffic management strategies;

NOW, THEREFORE, for and in consideration of mutual covenants herein stipulated to be kept and performed, it is agreed by the parties hereto as follows:

Article I

1. The CIA will:

a. Establish a pattern of work shifts for employees of the CIA Headquarters sufficient to ensure that the peak hourly rate (PHR) of arrival and departure of vehicles at the Headquarters does not exceed the existing peak hourly rate of arrival and departure at each existing entrance. These rates are as follows:

<u>Location</u>	<u>Arrival (PHR)</u>	<u>Departure (PHR)</u>
Route 123	1070	1130
Route 193	725	725
Geo Washington Parkway	1055	800

It is understood that changes in roadway traffic volumes may occur, however, if these changes alter the basic intent of the foregoing, then the CIA will be required to install the additional lanes noted in l.c.

b. Perform monitoring of peak vehicle arrival and departure hourly rates at each existing CIA entrance on a quarterly basis and report the findings to the District Engineer, Northern Virginia District, Virginia Department of Highways and Transportation.

- c. Provide funding to the Commonwealth not to exceed \$500,000.00 to implement such additional road improvements as may be mutually agreed to, but in no event less than six through lanes on Route 123 from the vicinity of Potowmack School Road to the vicinity of Merchants Lane, as necessary to enhance an orderly and safe flow of traffic in the event CIA fails to operate within the agreed upon peak hourly rates of arrival or departure for two consecutive quarters. It is understood and agreed that the CIA will hold appropriated funds in reserve for this purpose until 30 September 1990. It is understood and agreed that thereafter it will be necessary for the CIA to submit a federal budget request for authorization and appropriation of required funding.
- d. Permit the State to make appropriate traffic count checks at the three existing entrances when deemed necessary by the State.

Article II

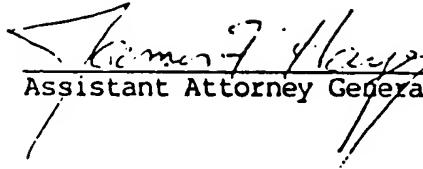
2. The State will:

- a. Provide design and construction services as specified and agreed to in the Memorandum of Agreement dated 10 June 1983.
- b. Provide prompt written warning to the CIA at the first instance in which monitoring demonstrates vehicle rates in excess of those specified by this Agreement.

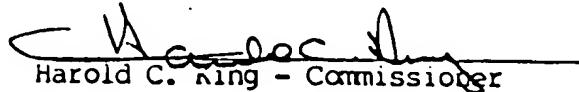
- c. Release the CIA from further financial liability at such time as the State installs the additional lanes planned in the current Statewide Transportation Plan for the Year 2005.
- d. Hold the CIA blameless for breaches of this Agreement caused by a State of National Emergency declared by the President.

Approved:

Commonwealth of Virginia
Department of Highways and
Transportation



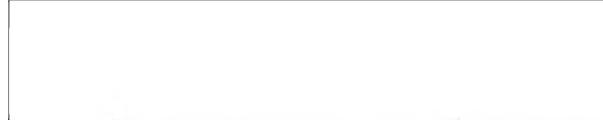
William J. Hickey
Assistant Attorney General



Harold C. King - Commissioner

United States of America
Central Intelligence Agency

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Deputy Director for Administration